

Appl. No. 10/089,112  
Amd. Dated June 22, 2005  
Reply to Office Action of April 22, 2005

### REMARKS/ARGUMENTS

Reconsideration of the present application, as amended, is respectfully requested.

Of previously pending claims 2-7, 9, 10, 12-15, 17-22, 24-29 and 31-35, claims 2-7, 9, 10, 12-14 were allowed, and claims 15, 17-22, 24-29 and 31-35 were rejected. Claims 15, 17, 18, 22, 24, 29, 31 and 32 were rejected under 35 U.S.C. §103(a) as being obvious over U.S. Patent No. 6,631,018, which issued October 7, 2003 to D. Milton *et al.*, in view of U.S. Patent No. 5,778,132, which issued July 7, 1998 to A. Csipkes *et al.* The Examiner reiterated his reasoning with respect to the rejection of independent claims 15, 22 and 29:

...Milton *et al.* discloses an apparatus comprising a pair of add/drop modules (Fig. 1, #4-8) corresponding to one of a plurality of channels (Fig. 3, #2 and 3), each module comprising an add device (col. 4, lines 62-63, and Fig. 3, #10) as an equivalent means for adding light to a first one of the fiber paths (Fig. 3, #2), a drop device (Fig. 3, #11) as an equivalent means for deflecting light to a portion of light from a second one of the fiber paths (Fig. 3, #3), wherein the pair have identical construction and the first and second paths, corresponding to a plurality of channels, carry light in opposite directions (Fig. 3), an enclosure for the add/drop devices (Fig. 1, #4-8), a first connection to the enclosure to connect to one fiber path (Fig. 1, #4, top left side), a second connection to the enclosure to connect to the other fiber path (Fig. 1, #4, bottom left side), and a second optical fiber extending from the enclosure (Fig. 1, #4, fiber from bottom right side) and coupling to a second connection to one end connecting the neighboring add/drop module (Fig. 1, #5).

However, Milton *et al.* does not disclose a housing with connectors.

Csipkes *et al.* teaches a housing with connectors (Fig. 7C, #160, and col. 6, lines 46-50).

It would have been obvious, to one having ordinary skill in the art at the time the invention was made, to incorporate the apparatus of Milton *et al.* with the housing of Csipkes *et al.*, since one would be motivated to make such a

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modification to simplify manufacture thus increasing product yields (col. 2, lines 28-31) as implied from Csipkes et al.

The Examiner rejected the applicants' arguments in their response to the previous Office Action mailed December 16, 2004 by stating:

Applicants first state that they are uncertain as to how Milton et al. is used to cite a pair of add/drop modules as elements of an add/drop node. To further clarify a pair of add/drop modules (Fig. 1, #4-8), the Examiner has interpreted each node as being a module.

Applicants further state that each pair of add/drop modules of Milton et al. do not correspond to "one of the plurality of channels", but to a plurality of channels, and therefore do not meet the claimed limitations. The Examiner disagrees. The claims contain the transitional phrase "comprising", meaning that the claim is open-ended. In this case, the pair of add/drop modules is not limited to corresponding to only one of the plurality of channels, but can correspond to a plurality of channels as well. Therefore, Milton et al. does meet the claim language.

Secondly, Applicants argue that the claims recited certain limitations with respect to the housing, and that the Examiner has not attempted to identify these limitations with elements of the cassette system of Csipkes et al., thus concluding the claims 15, 22, and 29 as not being obvious over the combination of the Milton et al. and Csipkes et al. The Examiner disagrees. The Examiner did attempt to identify limitations with elements. See the third section of paragraph 2 above, for example. Furthermore, the test for obviousness is not whether the feature of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. The combined teachings of Milton et al. and Csipkes et al. would have suggested housing for nodes or modules with free connectors, which one would have found

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obvious for protecting optical components. Therefore the claims are obvious over the combination of Milton et al. and Csipkes et al. Applicants' arguments are not persuasive, and the claims remain rejected.

First, as pointed out previously, the demultiplexers 10 and multiplexer 11 of a Milton network node 4-8 correspond to a plurality of channels. The Examiner does not dispute this. On the other hand, independent claims 15, 22 and 29 recite, ""a pair of add/drop modules corresponding to one of the plurality of channels," or similar language. While recognizing the difference, the Examiner states the use of the term, "comprising," permits that this language be ignored.

With due respect, the Examiner appears to be confusing the open-endedness of the number of claim elements or steps with the limitations of the claim elements and steps. MPFP §2111.03 states, "The transitional term 'comprising,' which is synonymous with 'including,' 'containing,' or 'characterized by,' is inclusive or open-ended and does not exclude additional, unrecited elements or method steps (underlining added)." The Examiner has effectively removed the applicants' claim language, "a pair of add/drop modules corresponding to one of the plurality of channels," a limitation characterizing the claimed add/drop modules.

Secondly, the applicants assert that the cited Csipkes patent is not an effective reference against the rejected claims. Independent claim 15, for example, recites that each of the add/drop modules comprises

- an add device configured to add light to a first one of the fiber paths;
- a drop device configured to deflect a portion of the light from a second one of the fiber paths;
- a housing enclosing the add device and the drop device;
- a first fixed connector attached to the housing to connect to one fiber path;
- and
- a first optical fiber extending from the housing and coupling to a first free connector at one end, the first free connector connecting to a neighboring add/drop module;
- a second fixed connector attached to the housing to connect to the other fiber path; and

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a second optical fiber extending from the housing and coupling to a second free connector at one end, the second free connector connecting to the neighboring add/drop module....

The Examiner believes that "Csipkes et al. teaches a housing with connectors (Fig. 7C, #160, and col. 6, lines 46-50)." Fig. 7C of the Csipkes patent has three cassettes, 120, 180 and 160. Presumably the Examiner believes that cassette 160 is the housing which holds the network node, i.e., the elements of Fig. 3 in the Milton patent. The applicants suggest that this is not possible by a cursory examination of Csipkes patent, which describes the use of three cassettes to hold the elements of an optical amplifier. See Fig. 1. Thus cassette 3 of Fig. 1 holds a doped fiber section 60, a 1480/1550nm WDM coupler 70, optical isolator 40C and 2% tap coupler 50B and 50;50 optical splitter 90. On the other hand, the Examiner asserts that one of the Csipkes cassettes can hold two demultiplexers 10, two multiplexers 11, channel filters 18 and 19, electro-optic converters 14, a digital cross-connect switch 15 and payload interface devices 16. All of these elements operate to add or drop signals to one of the fiber paths 2 and 3. See Fig. 3.

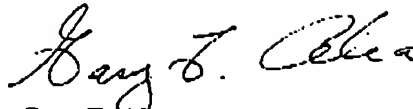
Of course, this disparity in scale results from the Examiner's assertion that one of the Milton network nodes 4-8 should be analogized to one of the applicants' add/drop modules. The applicant do not claim to have invented housing for optical nodes or modules, as the Examiner seems to believe. Rather, the applicants claim to have invented an add/drop node with particular add/drop modules having housing, as recited in the claims.

Hence independent claims 15, 22 and 29 are not obvious over the combination of the Milton and Csipkes patents, and should be allowable. Dependent claims 17-21, 24-28, and 31-35 should also be allowable for at least being dependent upon allowable base claims.

Therefore, in view of the amendments above and the remarks directed thereto, the applicants believe that all rejections be withdrawn, that claims 2-7, 9, 10, 12-15, 17-22, 24-29 and 31-35 be allowed, and the case be passed to issue. If a telephone conference would in any way expedite the prosecution of the application, the Examiner is requested to call the undersigned at (408) 868-4088 without hesitation.

Respectfully submitted,

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